

**ABSTRACT**

In accordance with an embodiment of the present invention, a dynamics processor includes a non-linear automatic gain control (AGC) responsive to an input audio signal comprised of a plurality of frequency components, each frequency component having associated therewith an amplitude, said non-linear AGC adaptive to develop a modified gain audio signal. A multiband cross-over device is responsive to the modified gain audio signal and is adaptive to generate 'n' number of signals, each of said 'n' signals having an amplitude and further having a unique frequency band associated therewith. The dynamics processor further includes 'n' number of processing blocks, each of which is responsive to a respective one of said 'n' signals for modifying the amplitude of the 'n' signals to develop modified 'n' signals; and a mixer device is responsive to said modified 'n' signals and adaptive to combine the same, wherein the amplitude of the plurality of frequencies associated with the audio signal is modified in real-time thereby enhancing the audibility of the audio signal.

002260-69069960